


# HEAT TREATMENT OPTIONS FOR BEARINGS


## CASE HARDENING




 Heated in a Furnace with a Methanol/Propane Atmosphere

 Soft Interior, Hard Exterior

 Can Take Shock Loads


 Carbon Diffuses into Steel Creating a High Carbon Layer


 Creates Compressive Stress on the Surface


 Used in When Long Life is Expected


## INDUCTION HARDENING



 Induction Heated & Quenched

 Results are Similar to Case Hardening, but Localized

 Selective Hardening


 Uses Electromagnetic Induction to Heat Steel

 Part Maintains Toughness

 Used on Bearing Raceways


## THROUGH HARDENING



 Heated, Quenched & Tempered

 Uniform Hardness

 Economical

 Carbide is Uniform Throughout the Steel

 Tempered to Increase Ductility

 Appropriate for a Range of Applications